

ABSTRACT OF THE DISCLOSURE

A hemostasis valve and a method of using the hemostasis valve to form a seal around a medical instrument that has been inserted through at least a portion of the valve. The hemostasis valve comprises a valve body having a proximal end for connecting to a first medical device and a distal end for connecting to a second medical device. The hemostasis valve also includes a first elongated chamber positioned within the valve body. A collapsible member positioned within the valve body defines this first elongated chamber. The first chamber has a first internal volume and is capable of receiving a medical instrument. The hemostasis valve additionally comprises a second elongated chamber extending about the first elongated chamber within the valve body. The second elongated chamber has an internal volume that is greater than the first internal volume. The hemostasis valve also includes a pressure application system comprising a member moveable within the second elongate chamber for increasing the pressure within the second elongate chamber and sealing the collapsible member about the received medical instrument.